

REMARKS

Claims 1 and 4 have been rejected under 35 U.S.C. 102(b) as being anticipated by Ragle (U.S. Patent 4,052,698).

In rejecting the Applicants previous arguments, the Examiner contends that "encoder 110 in Figure 1 of Ragle is a modulation encoder for providing the entire matrix 108 including parity and check bits to tape 102". This is simply not correct. "The entire matrix 108 including parity and check bits" is an 8x9 array, which is labeled as a "DATA GROUP" in Figure 1 of Ragle. However, this 8x9 DATA GROUP is not written to the tape 102. Instead, Ragle requires that the 8x9 DATA GROUP must be converted into a 9x10 RECORD GROUP that is written to the tape 102. Ragle does not (and cannot) specify the locations of the data, parity and check bits in the converted 9x10 RECORD GROUP. Note that Figure 2 of Ragle shows the converted 9x10 RECORD GROUP with generic bits labeled 'X', while the nature of every bit in the 8x9 DATA GROUP of Fig. 2 is specified as data bit (B), parity bit (P) or check bit (B encircled with dashed lines).

The distinction between bits of the 8x9 DATA GROUP and bits of the 9x10 RECORD GROUP is illustrated by Figure 3 of Ragle. For example, a 4-bit value of '0000' present in the 8x9 DATA GROUP is converted to a 5-bit value '11001' in the 9x10 RECORD GROUP. Suppose that the least significant bit (0000) of the 4-bit value represents a check bit and the three most significant bits (0000) of the 4-bit value represent data bits. Which bits of the converted 5-bit value '11001' represent the original check bit? Which bits of the converted 5-bit value '11001' represent the original data bits? While the converted 5-bit value '11001' may be representative of the data bits and check bit present in the

original 4-bit value, it is clear that the original data bits and check bit are not written to tape 102. By teaching that the original 8x9 DATA GROUP must be converted to the 9x10 RECORD GROUP before being written to the tape 102, Ragle teach away from writing the original 8x9 DATA GROUP to the tape 102. Because the original 8x9 DATA GROUP is not written to the tape 102, the original 8x9 DATA GROUP necessarily cannot be read from the tape 102.

The Examiner further argues that "If the parity and check bits were not stored on tape 102 it would be impossible for demodulation decoder 122 to recover parity and check bits". This is not true. As described above, the data, parity and check bits of 8x9 DATA GROUP are encoded by encoder 110 to create the 9x10 RECORD GROUP, which is representative of the 8x9 DATA GROUP, but does not include specific data, parity and check bits. The 9x10 RECORD GROUP is written to the tape 102, and is subsequently read from the tape 102 to provide a 9x10 READ GROUP. Decoder 122 retranslates the 9x10 READ GROUP to the 8x9 matrix form. In this manner, "the parity and check bits are not stored on tape 102", and yet it is not "impossible for demodulation decoder 122 to recover parity and check bits" as suggested by the Examiner.

For these reasons, the Applicants believe that the arguments previously presented in the Response to the First Office Action are adequate to show that Claim 1 is not anticipated by Ragle. Claim 4, which depends from Claim 1, is not anticipated by Ragle for at least the same reasons as Claim 1.

Claim 2 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Ragle in view of Brune (U.S. Patent 3,665,393). Claim 2, which depends from Claim 1, is

allowable over Ragle for at least the same reasons as Claim 1. Because Brune does not seem to remedy the above-described deficiencies of Ragle, Claim 2 is allowable over the combination of Ragle and Brune for at least the same reasons that Claim 1 is allowable over Ragle.

Claim 3 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Ragle. Claim 3, which depends from Claim 1, is allowable over Ragle for at least the same reasons as Claim 1.

CONCLUSION

Claims 1-4 are pending in the present Application. Reconsideration and allowance of these claims is respectfully requested. If the Examiner has any questions or comments, he is invited to call the undersigned.

Respectfully submitted,

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